KAZAKHSTANI CROSS-LISTED STOCK PRICES, EFFICIENCY MARKET AND IPO

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Abstract

As financial markets become global, foreign financial markets also become more accessible to domestic firms. It is opportunity to local firms to list their shares in a foreign exchange, in most cases a London stock exchange. But not all firms afford to list abroad due to costs associated with transaction and administrative costs. Other barriers can be the requirements, lack of transparency, legal barriers, or even distance to be listed on foreign exchange. Therefore only few Kazakhstani companies can list their shares abroad.

This study emphasizes the necessity and importance of learning of main purposes of the companies to list shares abroad. Cross-listing gives opportunity to enlarge their shareholder base and make their stock available to new investors. Secondly, it increases liquidity. In a more liquid market results in higher valuation as well. Finally, by listing on foreign market is usually better in terms of investor protection and disclosure requirements.

This study will be focused on an aspect of price sensitivity, and liquidity effect before and after listing abroad. Empirical studies have shown that the value of the listed firms increases in the domestic market upon the announcement of the cross-listing, and especially when the firm comes from less-developed market.

Keywords: Efficiency market, IPO, globalization, cross-listed stock

Introduction

As economic globalization increases, more and more corporations are establishing cross-listings on foreign capital market. This increases firms' access to new equity capital, and existing cross-listed home-country public shares benefit from greater liquidity and pricing efficiency when firms inter-listing foreign stock exchanges, such as the UK stock exchange. Consolidation and competition with foreign markets lower the barriers to capital flows and make information release more efficient. Further domestic

310

investors may take advantage of enhanced liquidity and favorable lower cost of foreign capital market, allowing them to enjoy higher valuations.

A cross-border listing (inter-listing, dual listing, or simply cross-listing) occurs when an individual company establishes a secondary listing on a stock exchange abroad. In this paper, we will analyze and compare the prices before and after listing to London Stock Exchange (LSE) and We will try to examine the impact of cross-listed shares to domestic market.

Kazakhstani companies soon discovered that the most natural vehicle for cross-border equity financing was through direct listings of shares on the major world stock exchanges. Thus at the end of 2005 several Kazakhstani companies start listing their shares on London Stock Exchange. But, though direct listing is more costly with large legal and accounting fees and the additional burden of having to reconcile financial statements with international standards, managers perceive tremendous strategic, financial, political, marketing and operational benefits to listing shares overseas. These managers argue that listing can improve the company's relationship with the host market participants—especially, regulators—and ease the costs of acquisition and trading of the company's shares by non-LSE investors. The decision to list shares abroad may also reduce the company's cost of raising capital by diversifying its exposures to different market risks, by reducing illiquidity of trading in its shares and by eliminating investment barriers due to international differences in accounting practices, disclosure requirements and taxation laws. Over the past decade, researchers have examined the impact of the corporation's decision to list its shares overseas. These studies focus on the very issues of concern to managers, but with different samples, time horizons and research methodologies. Unfortunately, the direct practical implications are often difficult to extract. The purpose of this survey is to examine the empirical evidence from 5 companies which are listed both on Kazakhstan Stock Exchange (KASE) and LSE to the literature on overseas listings in order to draw out these practical implications. We examine the following issues: market price behavior around announcement date of listings.

Section 2 begins with a brief description of the institutional features of the cross-border listing process, LSE overview and general information on Kazakhstani cross-listed securities on overseas exchanges. The heart of the study focusing on the research evidence is found in Section 3. Conclusion follows.

Globalization of Capital Market

One of the outcomes of the globalization of capital markets is the ability of firms to list their stock on foreign stock markets as liberalization of cross-border capital flows has reduced the legal and cost barriers. "This

"foreign listing" phenomenon has attracted extensive attention from academia during the past two decades as more companies opted for foreign listing motivated by greater liquidity in the trading of their firm's shares, access to foreign capital, improved valuations, better corporate governance, investor recognition, visibility, prestige and to pursue their global strategies". By definition, cross-listing of shares takes place when a firm lists its equity shares on or more foreign exchanges in addition to its domestic stock exchange market. "Generally such a company's primary listing is on a stock exchange in its country of incorporation, and its secondary listing(s) is on an exchange in another country. However, this term can also be used to refer to the listing of a company on more than one stock exchange in the same country…"

In the 1980s and in the first half of the 1990s, the fragmentation of the capital markets was the main motivation for corporate managers to consider an international cross-listing as a means of overcoming investment barriers and making a company's shares accessible to foreign investors. As Pagano et.al. (2002) argues, since the 1980, it has been a widespread corporate strategy to access foreign capital markets, particularly for large companies with an international orientation. Despite developments in technology easing the processes of international trading and clearance, thus reducing the need to cross-list, empirical findings suggest the opposite. One of main indicators on representative cross-listed securities, the volume of Depository Receipts (DR) have increased 3.1% to 80.5 billion as of June 30, 2011, a record high, as Michael Cole-Fontayn, the CEO of Depositary Receipts Division of BNY Mellon states. The increased interest of investor in foreign companies' DRs shall largely be attributed to benefits of international diversification usually offering higher returns and lower conjugation with domestic offerings.

Cross-listing is primarily motivated by access to markets that provide higher liquidity usually associated with lower cost of capital, referring to liquidity risk premium and/or more efficient valuation, though is not limited to.

Another motive for a company to cross-list is to signal to markets, including consumer market, that company has become a global player. And last, but not least intent to go listed abroad is to facilitate international mergers and acquisitions by means of becoming a reputed player on stock market.

As Dodd (2011) comments, there is a large body of findings that indicate reduced cost of capital for foreign companies listed in US, though there is no evidence of the same phenomena occurring in the host markets like UK, where LSE is incorporated. A Doidge et.al (2009) interpret this, "*a stock exchange listing in the US has unique governance benefits for foreign*

firms". From the standpoint of research, this shall be treated as an advantage as LSE cross-listing should have created fewer deviations from historical trend, and thus implying scarcer set of opportunities for arbitrage.

Foerster and Karolyi (1996) examine the stock price performance associated with the dual-listing of foreign stocks in US markets. Using dummy regression methodology, that allows for changes in risk exposures before and after the listing, and allowing for time-varying risk parameters, they analyze a sample of 106 firms that listed their ADRs in the USA from 1976 to 1992. They find positive and negative significant abnormal returns respectively before and after the listing. Their evidence supports that abnormal returns are related to shareholders' base change and stock exchange location, providing support for the investor's awareness and the liquidity hypotheses.

Cantale (1996) also observes positive abnormal returns for a sample of 72 European firms that listed on the NYSE, around the announcement day. This effect is more pronounced for continental than UK firms. He also finds positive abnormal returns for European listings on the London stock exchange and the Paris stock exchange but these are less pronounced than the ones observed for NYSE listings. Finally, he does not observe any effect for a sample of 55 US companies that listed either on the London or the Paris stock exchange. His results are supportive that a dual-listing is more valuable in a more prestigious exchange and for firms that originate from markets where disclosure requirements are relatively less strict.

Amihud and Mendelson (1986) claim that liquidity is what is behind the fall in required returns through changes in the bid-ask spread. When a stock trades on an exchange that provides superior liquidity services, its expected return will fall. Recent literature refers to the fact that managers time their application for listing, could explain the decline in expected returns observed after listing. As there is evidence that this decline is more pronounced for small firms, for which listing requirements may be binding, it may be the case that managers choose to list when firms have recently performed well. This line of argument does not address why firms are motivated to dual-list.

Lowengrub and Melvin (2000) examine volume and volatility before and after international cross-listing using intraday data for the 23 German firms that issued ADRs between 1991 and 1997.

To sum up, cross-listings offered by various companies in attempt to benefit both investors through global diversification at less cost and the issuer through access to deeper markets and cheaper capital are one of the financing alternatives that may be attractive under certain circumstances.

The Efficiency Market Hypothesis

Fama argued that in an active market including knowledgeable and able investors, securities will be fairly priced to reflect all available information. More precisely, the Efficient Market Hypothesis states that at any given time, a securities price fully incorporates all available information. The implications of the EMH are of great consequence. Most investors who trade securities do so under the assumption that the purchase price is lower than the security is worth to them, while the sale price is greater than the securities value. However, if current prices fully incorporate all information, then trading securities in an attempt to outperform the market relies on luck rather than skill. Moreover, there are different kinds of information that affect asset prices; hence there are three versions of the Efficient Markets Hypothesis (hereafter EMH).

1. The Weak Form of the EMH states that prices incorporate only past information about the asset. An implication of this form of the EMH is that one cannot detect mis-priced assets and consistently outperform the market through technical analysis of past prices.

2. The Semi-Strong Form of the EMH asserts that stock prices reflect all publicly available information. This information includes past prices and returns as well as a company's financial statements, accounting practices, earnings and dividend announcements, and competitor's financial situation.

3. The Strong Form of the EMH states that the current price of a stock incorporates all existing information, both public and private. In this case, one should not expect to systematically outperform the market even if trading on insider information. According to this form of the EMH, the market anticipates future developments and asset prices adjust to incorporate this information.

Research Methodology and Method

Event-study methodology calls for examining the stock returns around the date for Kazakhstani cross listed stocks on LSE before and after the announcement of IPO. An event study procedure is used to measure changes in share value around the listing date.

To conduct an event study, we have to measure a security's performance against a benchmark. The benchmark is usually the return that the security would have achieved had the event not occurred. Thus, the key to this analysis is to determine a model of the return-generating process for the security in question.

Several methods have been used to model the return-generating process. The simplest way is by mean-adjusted returns. Under this approach the abnormal returns would be:

$$AR_{it} = R_{it} - [E(R)_{it}]$$ (1)

where:

AR_{it} is the abnormal return on the security of firm I in time period t,

R_{it} is the observed return on the security of firm I in time period t, and

$[E(R]_{it})$ is the expected return for the security of firm I over a given sample period.

This technique assumes that the expected returns for a firm's security are constant and equal to the historical average return and, thus that any changes from the mean should be abnormal returns.

Another simple approach involves market-adjusted returns. Here it is assumed that the abnormal returns are those that are above the market return. Under this approach the abnormal returns would be:

$$AR_{it} = R_{it} - [E(R]_{mt}) \qquad (2)$$

where $[E(R]_{mt})$ is the return on the market portfolio in time period t. Financial economists usually use an index return, such as the KASE stock index, for market return.

Most event studies employ a more complicated return-generating process called the market model. In this model the returns for a security are assumed to be linearly related to the returns on the market. The market model requires to estimate the parameters of the following equation using regression analysis:

$$R_{it} = \alpha + \beta R_{mt} + \varepsilon_{it} \qquad (3)$$

where α, β are regression parameters, and ε is the error term for time period t. Once these regression parameters are estimated, the security's normal returns are then estimated using the estimated parameters (α, β) and the return on the market by substituting into equation (3)

$[E(R]_{it} = \hat{\alpha} + \hat{\beta} R_{1}mt)$. The abnormal returns are the different between the estimated normal return to the actual:

$$AR_{it} = R_{it} - \widehat{R_{it}} \qquad (4)$$

where $\widehat{R_{it}}$ is the estimated return for time period t from the regression equation. This approach recognized that few stocks move one-for-one with the overall market.

Once the abnormal returns have been estimated, the cross-section average abnormal returns are then calculated. They are:

$$AAR_{it} = \sum_{i=1}^{N} \frac{AR_{it}}{N} \qquad (5)$$

where AAR is the average abnormal return for time period t, and N is the number of firms in the study. The average abnormal returns are then summed to find the cumulative average abnormal returns. They are:

$$CAAR_t = AAR_t + CAAR_{t-1} \qquad (6)$$

where CAAR is the cumulative average abnormal return for time period t.

The following formula is used to compute the monthly trading volume changes:

$$(Vol_{i,t} - Vol_{i,t-1}) / (Vol_{i,t-1}) \quad (7)$$

where,

$Vol_{i,t}$ = the trading volume of company *i* for month *t*

$Vol_{i,t-1}$ = the trading volume of company *i* for previous month

Data Collection

A requirement to the data first of all, is availability of daily stock prices data. Secondly, we consider banking sector of Kazakhstani stocks. we took daily closing prices of 5 companies (from Yahoo Finance and KASE) which are listed on both KASE and LSE as actual return for 15 days prior to announcement and 30 days period used to event study. In order to compare also, we have consider 10 companies which are listed only on KASE. As, we cannot have meaningful estimation period prior to the event date, when the event is IPO. In this instance, we can possible select the estimation period +30 to +60, so we can see what the normal returns are after the initial price reaction resulting from IPO.

For local estimation of expected return I took KASE daily index for the same period for cross-listed stocks. And, to compare CAAR with LSE, I took FTSE index. Then, we are going to test two hypothesis, at 5% significance level:

Null Hypothesis (H_0):β=0, which means stock prices does not reflect to announcement event of IPO. If Kazakhstani market is weak form of efficiency, cross-listing in London Stock Exchange does not affect to the stock prices prior listing and after and should not change expected stock returns.

Alternative Hypothesis (H_a): β<0, where announcement event has positive effect on stock prices.If Kazakhstani market is semi-strong form of efficiency, cross-listing should increase sensitivity to announcement date event. Stocks' abnormal return may increase or decrease around announcement date.

Below in Table 1, shown five kazakhstani cross-listed stocks on both KASE and LSE with announcement date.

Table 1. Cross-listed stocks on LSE

CompanyName	KASE ticker	Announcementdateof IPO
Kazkommertsbank	KKGB	20/10/2006
KazakhmysPlc	KZMS	04/11/2006
HalykBank	HSBK	04/12/2006
AllianceBank	ASBN	01/06/2007
ENRC	ENRC	25/03/2008

Table 2. Cross-listed stocks on KASE

CompanyName	KASE ticker	Announcementdateof IPO
Kazkommertsbank	KKGB	23/02/1998
KazakhmysPlc	KZMS	08/07/2007
HalykBank	HSBK	16/03/1999
AllianceBank	ASBN	04/02/2004
ENRC	ENRC	07/04/2008

Table 3. Cross-listed stocks only on KASE

CompanyName	KASE ticker	Announcementdateof IPO
ATF Bank	ATFB	8/6/2003
BTA Bank	BTAS	1/6/2000
CenterCreditBank	CCBN	3/9/2000
KaspiBank	CSBN	7/12/2002
EximBank	EXBN	12/22/2006
KazInvestBank	KIBN	10/30/2000
NationalBank	NFBN	5/28/1998
NurBank	NRBN	12/13/2004
TemirBank	TEBN	6/18/1999
TsesnaBank	TSBN	3/19/2004

This work has several limitations. First of all, due to market inefficiency observed stock prices may not fully and immediately reflect all information. Furthermore, events might be anticipated in some situations, whilst unforeseen coexisting events could also have an effect on the sample stocks, which could lead to biased stock returns. Therefore, abnormal returns are not entirely the result of market reaction to the specific event of interest. Secondly, variations in estimation and test periods are commonly found in event studies. Precise estimation periods are not easy to determine. The length of the estimation period is subject to a tradeoff between improved estimation accuracy and potential parameter shifts. Thirdly, the choice of model to estimate expected returns will have a bearing on the results in the magnitude and the significance of abnormal returns. For example, using the average return method is simple, but it produces upwardly, or downwardly biased abnormal returns in bull and bear markets, respectively. Ritter (1991) also documents that using different market indices to calculate market-adjusted returns can show differences in long-term performance results. Fourthly, not all stocks trade every day. Thin trading over the estimation and test period is a problem in event studies.

Analysis and Finding

Figure 2 present results on the effect of dual listing on share prices. The main finding is a significant rise in share prices, CAAR $(-15,0)$ = 9.10%, on average (p - value = 0.0000008), and in the median, CAAR $(-15,0)$ = 7.68 % (p - value = 0.001153) suggesting that the dual listing had a

significant positive effect on share prices. These results are reinforced when we considered the effect on share prices up to one month after the announcement date of the dual listing. It appears that although the excess rates of return from the 15th day to the 30th day following the announcement of dual listing are positive, CAAR (15, 30) = 27.48%, they are not significant (p - value = 0.00000001).
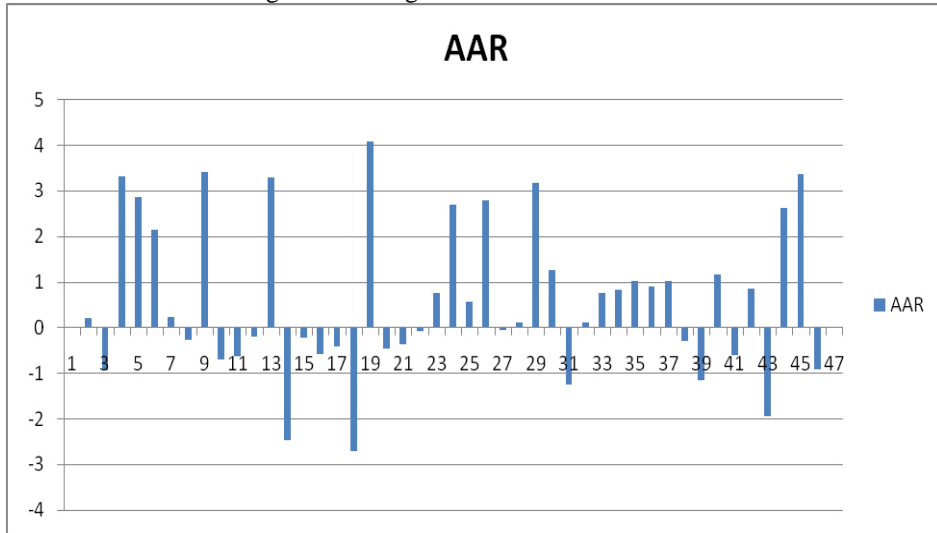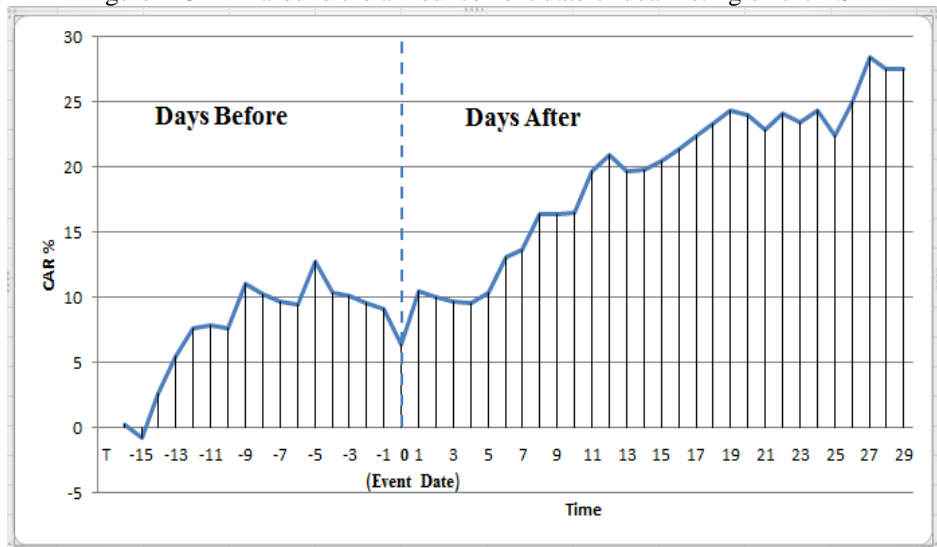
Figure 1 Average Abnormal Return of LSE

Figure 2 CAAR around the announcement date of dual listing on the LSE

We can see stocks listed on KASE that stars listing their shares on LSE has positive effect on share prices. But after listing on LSE we can see that cross-listing has negative impact to stocks.

318

Figure 3 AAR of Kase 5 cross-listed companies
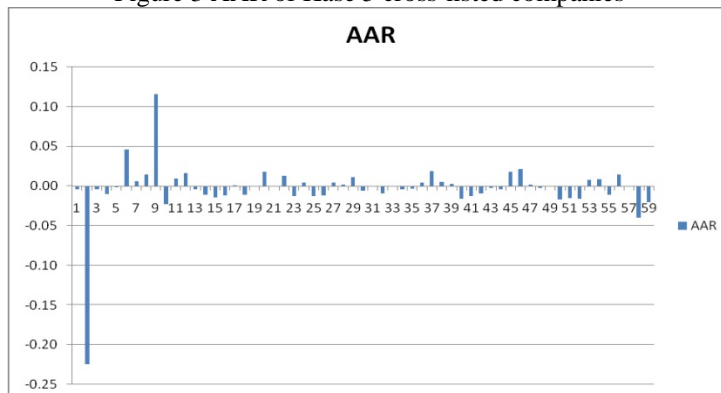
Figure 4 CAAR of KASE 5 cross-listed companies'
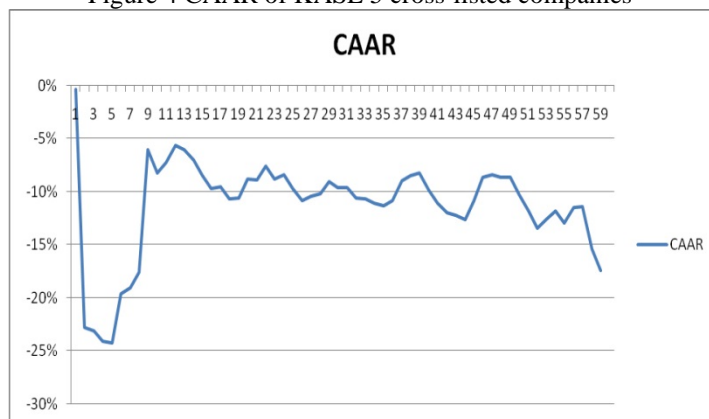
Figure 6 shows positive CAAR(1,30)= 0,00 that is significant (p-value= 0,38), and after 60 days CAAR (30, 60)= -0,81 that is not significant (p-value= 0,0015). Here stocks that are issues IPO only on KASE, and as we can see from results after 30 days of listing it doesn't have changes, but after 60 days it even go negative.
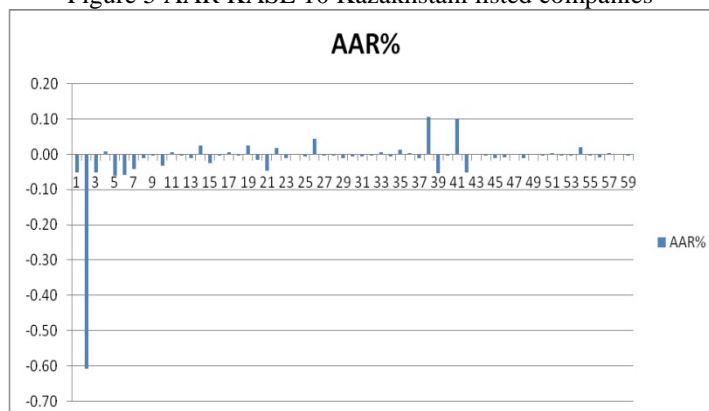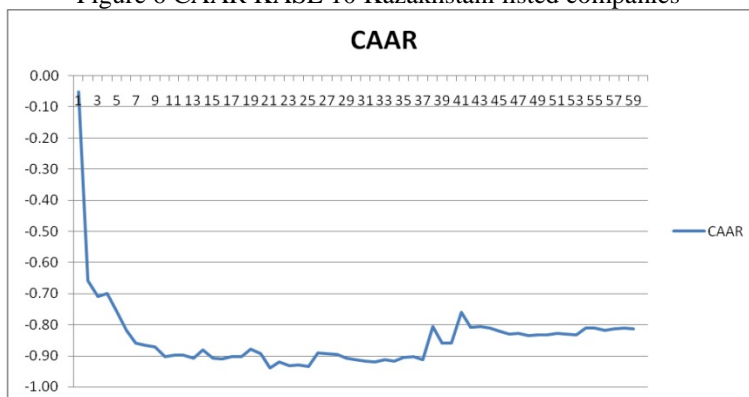
Figure 5 AAR KASE 10 Kazakhstani listed companies'

Figure 6 CAAR KASE 10 Kazakhstani listed companies'

In comparison with CAAR estimated through KASE index, CAAR with FTSE index as shown below were increasing slightly before announcement date, and after event even decreased till twelve's day. But after as we can see on Figure 7, it was increased by 12%. P- value also significant less than 5%. We can reject null hypothesis.
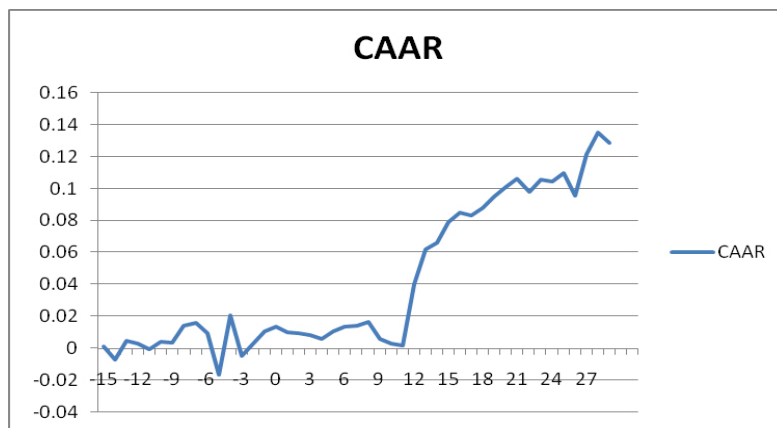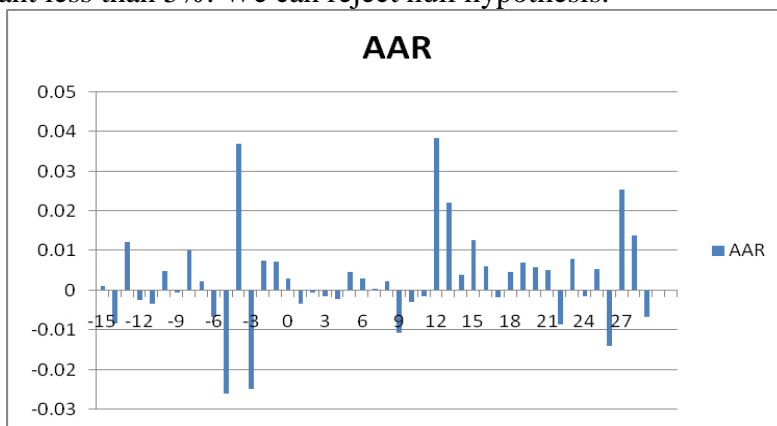
Below, on figures 7-9 we can see that volatility of spread decreasing. This means stocks become more liquid, where spread between bid and ask prices decreasing. Whether the stocks traded frequently, it says that trading of this stocks increasing, hence this stocks considered liquid stocks. But if we look to the Figures 4 and 6, stocks which are traded on KASE have negative return, rather than Kazakhstani stocks on LSE. Even if, graph shows high volatility during this 60 day after listing on stock exchange market see Figure 5.
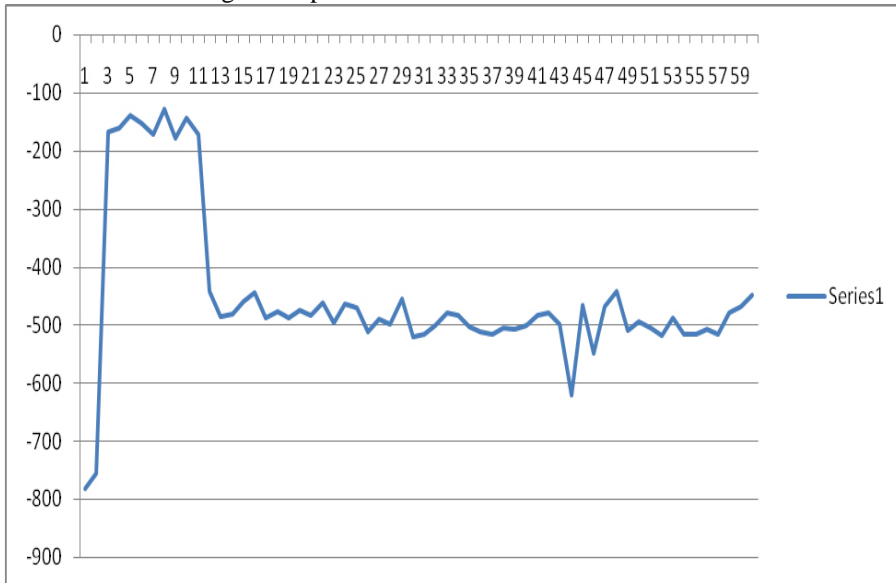
Figure 7 Spread of cross-listed stocks on KASE

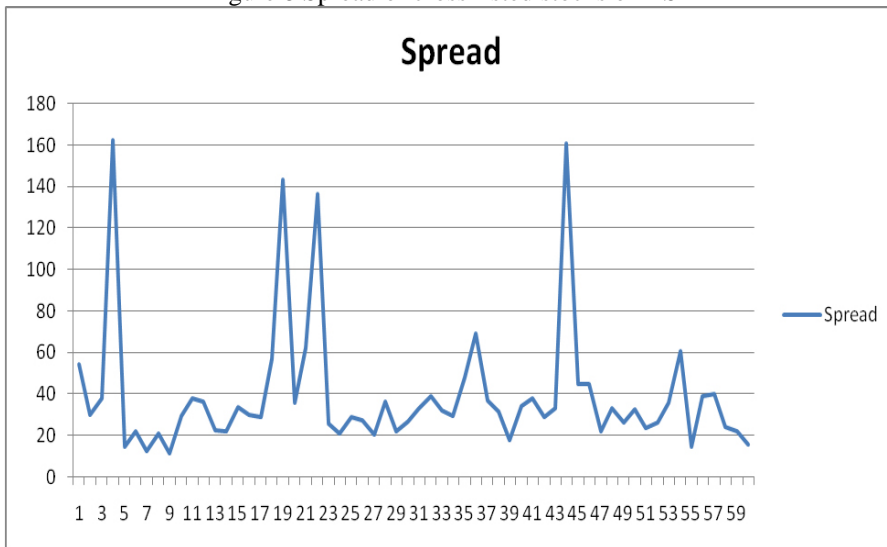Figure 8 Spread of cross-listed stocks on LSE

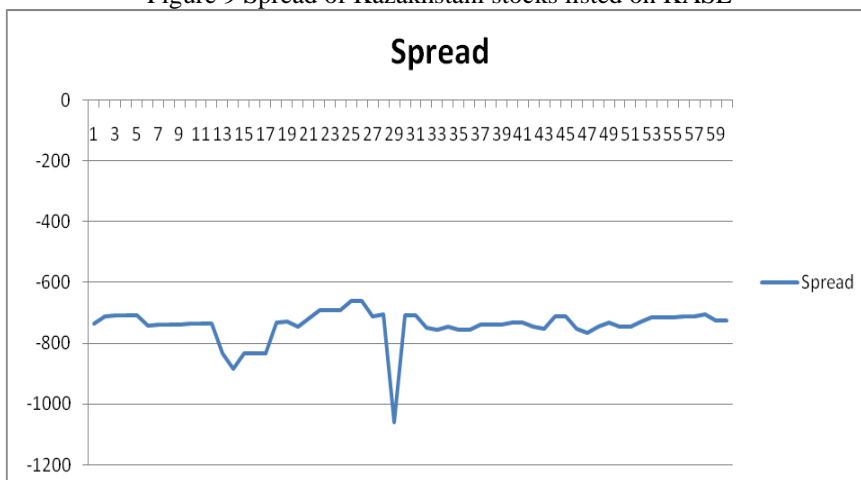Figure 9 Spread of Kazakhstani stocks listed on KASE
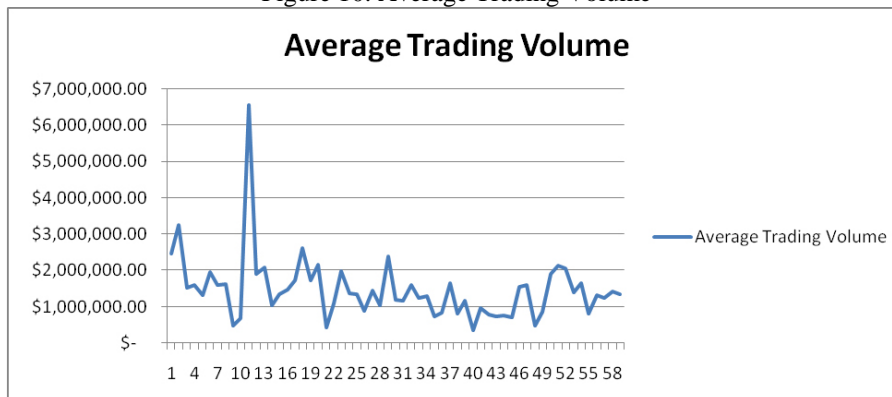

Figure 10. Average Trading Volume

Figure 7 presents the findings regarding changes in the liquidity of each share following the dual listing. I find that trading volume had fallen, on average, from about $2,470,525 per share to about $ 1,338,325, following dual listing during 60 days after listing. This figure represents a fall of about 46% in the overall trade volume in the LSE of dual listed companies. Also found that only 1 of 5 firms in my sample had experienced a positive change in their trade volume.

Conclusion

Event studies to provide investors, financial managers, and regulators with new data about how firms' stocks behave and about how quickly new information affects firms' stock returns. Such studies have helped document the extent to which the shareholders of cross-listed stocks gain abnormal returns. They also have helped identify and quantify cases in which bad new

affecting one stock or group of stocks has had so-called contagion effects on other stocks.

Using event study methodology with cumulative abnormal returns we have tested the hypothesis of beneficial cross listing effect on companies from Kazakhstan. Also, as empirical studies show estimation of CAAR using KASE index as expected return showed as positive effect on share prices. Then the same CAAR for the same companies but using FTSE index for cross-listed stocks, empirical results showed increase in 12% in comparison with those CAAR estimated by KASE index 27,5%.

Available datarelating to stock prices in developing countries, and particular in transition economies, are subject to shortcomings. We used most recent sources, which are believed to be generally comparable. The results of the research, however, have to be interpreted cautiously. In general, empirical evidence provides support to the hypothesis of favorable market reaction to a listing of GDR.

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